POD OF JAKE
#160 - CAITLIN LONG
AI-GENERATED TRANSCRIPT

Jake 00:15
All right, thank you, Caitlin, for coming on the show today, I really appreciate you taking the time you are the founder and CEO of custodia bank. And you've been in Bitcoin since 2012. Just kind of interested in doing relevant things in the space. And before that you spent over a couple of decades and traditional finance working for Morgan Stanley, as well as a couple other firms. So great to have you on the podcast today. And looking forward to digging into a bunch of this stuff. But before we get started, I think the best place to start would be if you could just kind of tell your story for those who don't know you from Israel, you're going to start to where you are today and maybe talking about some of the decisions you made along the way.

Caitlin Long 00:50
Yeah, thanks, born and raised in Wyoming, went to law school, self-educated in finance, for the most part, I do have a master's in public policy as well, and then went to law went to Wall Street to pay off my debt at school that and stayed there a lot longer than I anticipated. I came across Bitcoin in 2012. It's it was as a result of me to get a very deep and broad dive into alternative schools of economic thought, which bubbled up in a big debate over Twitter this past weekend. We got more, you know, Trad fi folks coming in and curious. And a lot of the a lot of folks have gone to their respective corners. And I lament that and you know, just start slinging mud at each other. I lament that because I think there's a there are a lot of curious people watching and trying to learn and as somebody who came from Trad fi, and I understood the significance of Bitcoin, through a couple of different lenses, it was it was through the Austrian School lens, that was one of the schools that I did a deep and broad dive on back into after the 2008 financial crisis. But then also the just just kind of, you know, folks who are who are already in like that modern monetary theory or turtle list camp, they're never ever going to get bitcoin, because to them money is only what the government says it is. But to the rest who are curious or who worked so dogmatic maybe they took a you know, one or two economics classes in high school or college, and, and they know something's new and different. They sense that something has has, you know, is wrong in the financial system, and they can't quite put their finger on it. That's the group that I hope to be able to bring more curious people in. Because in my early days, I just like

everybody was skeptical of Bitcoin in the beginning. And yet, once you have the AHA, my experiences, but pretty much nobody after going down, that rabbit hole comes back out.

Jake 03:01
Yeah, a couple of interesting things that I'd love to like sort of zoom in on when you first came across Bitcoin, everyone's got like, sort of their own story. Yours is not a super uncommon one. But it's obviously uncommonly early and through this particular track, where a lot of people who got there uncommonly early went through this track, which is sort of like the Austrian school track that sort of leads led people to Bitcoin back then. So can you sort of rewind back to that point in time where Here you are, you know, several years into your career and traditional finance, or you've been calling chat via for those who aren't familiar with the lingo? And you sort of stumbled upon like, Okay, here's this interesting school of thought. And here's this thing, Bitcoin that people are talking about here, like, what led you down that rabbit hole of different things in the first place? You mentioned, you sort of got into it, maybe after 2008. So maybe you had that first sense of like, okay, something's actually really broken here. Can you talk a little bit about that moment?

Caitlin Long 04:01
Yeah. And it is important to say I didn't completely get there through the Austrian School, that was where I started seeing references to it in 2012. But it was also because I was doing a on my wall street career, I started a market for large value pension transfers. And the first transaction happened in 2012, at that exact same time that I came across Bitcoin, and I was dealing with the operational morass of the financial system, and it has not really gotten better since 2012. And, and I'll go into that in greater detail. But so it really was two lenses that caused me to have aha moments. But backing up what caused me to go on this intellectual journey of looking at alternative schools of economic thought, I realized that what I learned in economics class wasn't really the way the world worked. And I had, you know, classic Keynesian type. Um, economics, I took quite a bit of economics. My my undergrad degree is political economy, which was a, basically a joint degree between political science and economics. And then my graduate degree was at the Kennedy School, and I specialized

in international trade and finance. And then once I figured out, I was gonna go to Wall Street, I was better at numbers than words. While I was in law school, I started taking elective classes. We didn't have like MOOCs or, you know, free online classes back then. So I registered for the Harvard Extension School and started taking finance classes and accounting classes, cross registered to Harvard Business School and took a couple of finance classes just, you know, just dove into the deep end of the pool, because I've never had a basic finance class. But I have had economics. So long story short, I have just the classic, you know, 30 years ago, you know, both micro and macro economics, and then did take some history of economic thought. But what was so interesting is that the schools of thought that I studied in my own journey into after 2008, were not part of my economic history class, they were considered fringe on both the left and the right, meaning Well, you know, that's probably a bad dichotomy. They were just considered fringe, the Austrian School is kind of the extreme free market, school of thought. And then the charter lists, which has now been reincarnated, as modern monetary theory are basically there shouldn't ever be private banks and government, it should be an exclusively in charge of money. And money is what the government says it is. And, and, you know, there is no such thing as private money. The biggest difference between those those, you know, schools of thought on the rage, and I did look at two others in between as well, the biggest difference and the reason why I ultimately gravitated more towards the Austrian school, but not exclusively there. It is, because the modern monetary theory school of thought, doesn't have a capital structure. Essentially, it is it says that there's an infinite balance sheet. And the the reason why I ended up mostly towards the Austrian School, although with big caveats, is because, of course, the balance sheet matters. And this is, you know, to put it into perspective of today's school, you know, some of the phrases that people throw around, deficits don't matter. Okay, that is, that is sort of the, you know, New Keynesian and modern monetary theory, which is really in control of economic policy right now, that literally deficits don't matter, we shouldn't have a debt ceiling. We owe it to ourselves, Paul Krugman, you know, a lot of his writings, and the folks in the Biden administration who control economic policy, and increasingly, the people who have been appointed to the Federal Reserve Board of Governors come from those schools of thought, and it essentially is that we shouldn't have anything other than postal banking. They don't like private banks, generally, they would rather have one single public bank and NSN, a central bank digital currency that they control it. So it's an extreme government control, it really is the the polar opposite of the Austrian School, which is no government. Now, the biggest critique, I always like to say that I landed with the Austrian School was that, you know, they're always sort of claiming Hyperinflation is around the corner. And to me, the biggest interesting question is, why didn't that happen? Right? They started screaming about it after the US left the gold standard in 1971. And the dollar didn't collapse. Why? That's the most important question to ask yourself. Why. So that the the Austrian School, as has been published in scholarship is not where I am. But I do believe that their approach, which which is the Austrian theory of the business cycle, that is that I've observed it so many times. And I think that's the best way to have to explain what's wrong. And essentially, to put it into layman's terms. The conclusion is that the the one price that should absolutely never be government controlled, is the price of borrowing money. In other words, the interest rate, and yet that is the price that is the most government controlled, right? We have the Federal Reserve Board of Governors, those seven governors unelected, who are, you know, supposedly economics experts who are setting interest rates that is the antithesis of a free market and why is it so important? That that that one price be the one that is not controlled? The answer is that is the stoplight? It is the it is it is the mechanism through which capital allocators allocate capital across industries and across time, and if your interest rate signals are screwed up, you're going to be making the wrong decisions. And coming back full circle to your question about 2008. It was recognizing that you know why Is it that everybody over invested in land in 2008, they all made the same mistake in the same direction. And that wouldn't have happened in a free market, there wasn't incentive created through interest rates being too cheap. And what tends to happen is when interest rates are artificially cheap relative to what they would be in a free market, you get over investment in long term projects. And land is of course, you know, real estate development is one of the longest term industries. And so you got over investment in in the housing market and in real estate, and, lo and behold, massive defaults from subprime. So there was another piece in 2008, that also got me going, which is I was watching Tim Geithner, then Treasury Secretary, under Obama, explain that the Fed had held interest rates too low in 2008. And that is what created the mortgage meltdown. And then a week or two later, he made a speech where he was urging the Fed to reduce interest rates even lower. And that was just a clear contradiction to me. Which one was true? And the answer, I dug in, and, you know, it was his first day, his first statement was true. But again, this this is evidence of the fact that we don't live in a free market economy. We live in a managed economy, and it is managed for for GDP growth to be relatively stable. And and you know, it is there's, it's out there for everybody to see, it's the Feds mandates of full employment and price stability. And I think there's a third unwritten one, which is financial system stability, as well. And, you know, boy, once you go down that intellectual journey of looking at the different schools of economic thought, boy, do you open up your eyes?

Jake 11:50
Right. So I mean, that's a super informative perspective, and appreciate you sharing it, I think, the question for me then becomes, okay, so the current system seems broken. And there seems to be a better way of doing things, something along the lines of the Austrian school, but perhaps something slightly different. You mentioned having your caveats. Namely, I think hyperinflation not always being around the corner, and perhaps some other things, but how, like, what is the status of the system? Obviously, we had the banking crisis, several months ago, you know, 2008, only, whatever, 1516 years behind us at this point, not a long time, and in the scheme of things in the long term. And so we're seeing sort of like these cracks, and, yeah, some could argue that, hey, you know, this is just a natural part of what happens and, you know, look, the banking crisis, people, you know, thought that we were going to have this landslide of banks going down, and it actually kind of stopped due to these measures that were needed, but it's like, Well, are we just sort of putting tape on the leak in the bucket? And eventually, it's all gonna sort of like blow up. But basically, what's your your sort of evaluation of the current status of the current system? And is there a way to, you know, move to a new system that doesn't sort of involve, you know, catastrophe along the way?

Caitlin Long 13:08
Well, of course there is. And that's what I'm interested in. Right? If I actually thought that the financial system was going to implode tomorrow, why would I've started a traditional bank to deal with US dollars if I thought the US Dollar was going to go away? Tomorrow, a lot of people in the crypto industry overstate that case. And I think we don't do ourselves justice when we are sounding so extreme. And that's why I lament, you know, there was this big back and forth between tried fi folks and quote, and Bitcoiners over the weekend, and I exited as did Lynn Alden, I exited the thread. When the they started, the TRad fi folks started throwing at homonyms at us that we were not educated that we were criminals that we were charlatans, right, the moment you start throwing out homonyms, you're not going to reach any common ground. But I thought it was really an interesting experiment in getting at the fault lines, why is it that so that those folks on that in that tribe fi world can't see where the Bitcoiners see things clearly, and I came down to three difference differences of opinion. One is that an asset must have intrinsic value for it to be valuable versus the Bitcoiners who say all value is subjective. So that whole kind of intrinsic versus subjective value is number one. Number two is what is the definition of inflation? They would say it's CPI or PPI, those kinds of measures and the the Bitcoiners would say no inflation is an increase in the money supply and the CPI and PPI are effects of inflation, not the inflation itself. And then the third is what is the definition of money? That's the basic one. I have found this the most interesting observation in my whole journey. Is that it money itself is the most confusing topic and the people who work most closely to it. In other words, people who work in money factories like banks and broker dealers and asset managers every day, are the ones who tend to misunderstand it the most ironically, and the diffs. The distinction is again, as I said in the beginning, that that it was revealed that this Trad fi group thought money is what the government says it is. And the Bitcoiners think money can spontaneously arise as a good that is commonly accepted in in exchange as a medium of exchange. And I think history on those three things, right, intrinsic versus subjective value, inflation, what is the definition of inflation? What is the definition of money, those three things are the fault lines, and I happen to come down on the Bitcoiners side on all

three of those, I do believe that all value is subjective, real estate's perfect example of that you rent your house out, and you get upset that it doesn't get the same rent as your neighbor who rented their house out. Why, because all value is subjective, there is no such thing as an objective rent. And then inflation absolutely is always in everywhere a monetary phenomenon. And what we measure is the effect of it, but not the actual inflation itself, which is an increase in the money supply. Now money supply, we can debate differences on definition there. But I definitely come down on the on the Bitcoiners side on that one. And then the third one, the whole notion that money can only be what a government says it is, to me, it just ignores 1000s of years of human history. And even recent history. Lynn aldens book, broken money has a great example that I wasn't completely aware of, because I'm not a gamer, about the spontaneous sort of creation of the concept of money inside video games, that that people start, and basically not controlled by the by the game designers that spontaneously communities start trading something as money. And I don't remember the name of the game that she identified. But I thought it was such an interesting example. Because it's so recent, how does someone who believes that money can only be what a government says it is? Explain that in these virtual worlds that that that spontaneously, people start trading certain goods amongst each other as a medium of exchange, and those evolve as the most used medium of exchange, which we would call money.

Jake 17:37
Right? Yeah, that's, that's really interesting, as well. And so like identifying those foul lines in such like a clear sort of three part framework. If we double down on the money sort of fault line a little bit, what is money? And sort of the specific argument there seems to be, is it government created government controlled? Or can it, you know, be produced spontaneously? Can it sort of emerge spontaneously, like in the video game that you mentioned? But I think even within the argument of what is money, there could be many fault lines, like many different sides, that's just too, right. And so I want to sort of talk a little bit about a different one, or maybe it's not quite a fault line, but that's focused what you just described, just focused on money as a medium of exchange. And of course, that's a well, maybe not, of course, but I think you and I at least agree and a lot of

people agree Bitcoiners would agree that medium of exchange is a, you know, a critical function of money. But some people point to others as well store of value as well as a unit of account. And roughly I think, I don't know, this might be not exactly right. But I sort of think of them in like sort of a descending order with like store of value actually being first and most critical, and then medium of exchange, and then unit of account. And maybe that's just sort of the way that I interpret things. But Bitcoin to date has been extremely functional as a store of value. Anyone who's held it for any period of time, longer than, you know, a handful of months, or I guess in some cases, you gotta go through a cycle. Yeah, exactly. If you hold it through a cycle, it's been a great store of value for you, wherever you are in the world, which is important, because in the US, yeah, you might have a little bit of inflation year over year, every five or 10 years or whatever, historically, over recent history, but in a country like Venezuela, this was what first sort of snapped Bitcoin into place for me was when I realized that I think it was Andreas Antonopoulos. Actually, I noticed him he was, you know, speaking, and he was like, it's very hard to explain Bitcoin to Americans, but I don't have to explain it to Venezuelans. Because, you know, yes, Bitcoin is volatile, but their money is volatile, like this, and he does like, you know, a volatile line with his hand that's going down into the right and then he goes, Bitcoin is volatile like this, and it's a volatile line that's going up into the right. And so for people who don't have a place to put the money that they've earned from their job, or whatever it is, Bitcoin access worldwide, you know, they don't need to be able to invest in American assets or whatever it might Be it's like this tremendous store of value really like an unprecedented global digital store of value. But the medium of exchange sort of story hasn't really played out yet. And some people say, Well, that's because, you know, it's going to take some time and, and further adoption, the price is going to keep rising. And if the price is rising, extremely, that's never gonna happen in straight line. So it sort of has to be volatile. But once it flattens out, once there's like, you know, big global mainstream adoption, and it sort of gets to a somewhat stable point, at that point, people will start to use it as a medium of exchange, because, you know, the price will just be more, you know, people won't want to hold it and hold it, because it's, you know, going to appreciate so much. So what do you make of sort of like the medium of exchange value around Bitcoin today? And does that store a value kind of faultline come into play between traditional finance and, and Bitcoiners? as well?

Caitlin Long 20:49
See, I don't think money has to be a store of value. That's where I would definitely disagree. I mean, it's nice if it is, but it's, it has to be a medium of exchange, there was a really interesting for it to truly be money. There's a really interesting speech that Nick Zabo made at Bitcoin 2021, where he debated whether liquidity in Bitcoin markets is really a necessary factor for the success of Bitcoin and he concluded it's not you have to be able to use it as a medium of exchange. But But the notion of having small bid offer premiums, and, and having having intermediaries play fast and loose with whether they're really backed one to one with real Bitcoin, and something that can move as fast as it as bitcoin does, is a ridiculous notion. And I agree with them, I don't think you need liquidity. So I'm not talking about liquid markets as in as in defined by low bid offer spreads, I'm talking about just the ability to exchange it at all, even when you really need it. So so

Jake 21:58
the clarification so what exactly do you mean by that? Because that's where I thought we're talking about sort of like Bitcoin, like the medium of exchange is actually the first and foremost function from your perspective. But to me that I'm having trouble reconciling that with, we don't need to be able to exchange it for anything.

Caitlin Long 22:13
No, no, we do. You don't need small you don't need narrow bid offer markets. In other words, he's saying you don't need financialization. He's kind of disagreeing with trace Mayer going back into early Bitcoin days, his seven network effects and the six of his seven network effects, which is where we are right now is Fen financialization. And then number seven is a global reserve currency. And, and and Nick is essentially arguing as as MI, we don't need financialization, you don't need all these derivatives, and you don't need all these market makers and you don't need people going leveraged. In Bitcoin, they're gonna blow up, they're gonna blow

themselves up, right? We've seen that so many times, I hope people learn the lesson the next time around, don't leverage Bitcoin, it's a disinflationary asset, you come out ahead, just by owning it, you don't need to earn yield on it, because it has a inflation rate of 1.7. Right now, going down to 1.1 as of April, okay, and so you know, when CPI is three or 4%, in the United States, for example, you'll come out ahead just by owning Bitcoin. And the and the actual underlying inflation rate, which is the increase in the money supply is far in excess of three or 4%. Right? It's just that right now, it's only showing up is three or 4%, consumer price inflation, but a lot of the inflation is showing up as an asset price inflation because of the mechanism, the plumbing through which money enters into the economy, it doesn't go into consumers hands anymore, it goes into the into the financial systems hands, which is why the financial system keeps getting richer and richer and richer. And a lot of people are looking at that going, something's wrong here. And yeah, it is. It there is definitely there skimming mechanisms that have including cancel on effects of of the first money, people who get the first money, get it before its purchasing power is reduced. And as it gets, as it works its way through the economy, the purchasing power of that new money gets reduced further. So the financial system gets it first. And guess what the financial system has gotten very large as a percentage of US GDP and you know, way out of whack with history. Going back in, you know, prior to the 1970s, about how big the financial sector was in the United States. We live in a very financialized economy and this is the debate, do you need financialization of Bitcoin in order for Bitcoin to become a medium of exchange? And I would argue, no, I'm with Nick, I don't think it's necessary. So you have to be able to use it. Yes, it has to be recognized as a medium of exchange. But that doesn't mean that you need, you know, all this financialization of it in order to make it a medium of exchange. I personally think a lot of that financialization is setting us back. I don't I think it's great that there are speculators here, there, there will always need to be speculators, they do provide the liquidity that they do provide that as a positive. But all that leveraged financialization that they bring. That's a downside. And so that's why I've said, for example, that ETFs are a double edged sword. But let's get back to the one of the interesting questions you pointed out, rightfully, that Bitcoin itself has become money in certain emerging markets. And over the weekend, as part of this big, long thread, a gentleman from from Nigeria popped up and said, you know, they're experiencing very high inflation. If that hyperinflation in Nigeria, right now, the government is trying to force the naira on everybody, which is a central bank, digital currency. And what it ended up doing was backfiring, because everybody had to learn what electronic money is, and how to hold it, you know, a digital wallet. And once they've educated themselves on it, guess what Bitcoin adoption went way up in Nigeria, because people would rather hold the thing that the government can't manipulate than the thing that the government exclusively controls. And so he's saying, hey, you know, this was a medium of exchange for me and it absolutely bailed me out. We haven't talked yet and maybe isn't a place for us to go Next of all right? Bitcoin is a medium of exchange, as I believe it is recognized as money it already is a small r small c reserve currency, however, it's small relative to the big reserve currencies in the world. So what is bitcoin right now baselayer bitcoin is useful for high value payments due to the fee structure. And if you're going to use Bitcoin to buy a cup of coffee, you're going to be interacting with a layer two, which is just a layer above Bitcoin, this is no different than the Fed having base money which only banks can transact with unless you're using a physical dollar bill, which is a really small percentage of the base money outstanding. And then the banks issue M one or m two. So so that there is no difference Bitcoin base layer bitcoin is the m zero of the Bitcoin system, Lightning Network. And other second layer solutions are the M one or m two of the Bitcoin system. And you can get essentially zero cost payments through lightning right now. And this is where the adoption in El Salvador for example, is happening. They're not It's not basically or Bitcoin the fee structure is, has gotten to the point where, you know, Bitcoin, when I first got involved with it, I bought all my Christmas presents in 2014, with Bitcoin, and the fees were cheap, it was cheaper, cheaper payment system. But right now, the fees, you know, the fees cost more than the cup of coffee you would be using to buy bitcoin with a cup of coffee for, so it makes no sense. You've got to have a scaling solution. And the layer two is our layer two is are the scaling solution. And lightning is is to me the most exciting though it's not the only one.

Jake 28:07

Yeah, it's funny, you mentioned the Nigeria thing. I wasn't actually aware of that sort of like narrative ongoing. But I know from years ago, when I looked up, Bitcoin, I just follow Bitcoin on Google Trends, just to kind of keep tabs on that once in a while, I find it like sort of an interesting little metric. And, and years ago, I looked it up and Nigeria was like far and away, like the most, you know, they do like the rank by countries or whatever, Nigeria was like, number one by a good amount. And I just out of curiosity, looked it up again, to see where it's at now. And, as you might sort of guessed, El Salvador's number one now, but Nigeria is number two, by again, a large margin. And then, you know, it's actually like Switzerland and Austria, somewhat ironically, like sort of next on the list. But yeah, it's I think, like, there's this within the US, at least, and even globally, if you're, you know, plugged into, for example, like crypto Twitter or something like yes, it's to crypto is more decentralized than really any other like domain within technology. But even still, there's just like, a very US centric focus. And so you don't really hear I mean, people will point out these narratives going on internationally, but they're not as sort of central as, like, what's the prevailing, you know, news in the US, like, as exhibited by the recent ETF stuff, like that's all over everyone's front page, obviously. Right? Whereas some of these other stories that are pretty interesting, are just they can sort of fly a little bit less, you know, a little more under the radar. And it'll be curious to see as Bitcoin you know, sort of continued its emergence, like how much of that, you know, goes and fades with the US versus how much of that sort of comes from international rise, which I think a lot of people agree. I mean, I'd certainly say it's sort of the Internet has sort of made the world more globalized. And so these places that have been sort of out of the money for a long time, people have a better chance of doing interesting things and, you know, building great companies or whatever it might be from anywhere in the world more so today than, you know, anytime before and the same is true with the US you don't have to live in, you know, in New York, or, you know, California anymore, you can grow up in Idaho or Iowa or wherever it might be. And, you know, if you can just have Wi Fi and a laptop, you can do a whole lot. So it's just gonna be kind of interesting to see how much of this is like an international rise versus domestic. But you brought up the ETF earlier, obviously, big news. I guess last week, it was, and it's been kind of interesting for me to watch. I'm curious, your perspective, because like, the whole, you know, the especially like Bitcoin, maximalists, and whatnot, it's always, you know, not your keys, not your crypto and, and, you know, the whole, like, you know, Sovereign Money, anti government, anti financial institutions, everything like that, which, you know, I don't go to the extreme lengths unnecessarily, but in general, you know, I agree, like, I would like, you know, I see the value in having my own, you know, control my own money. And I think there's like sort of a trade off there. It's like custody has its risks, but so does, holding, you know, you know, being being sovereign with with your crypto having it on a cold wallet, or whatever, if you mess up, there's no one to call like, so there's Yeah, I just tried to be practical about sort of, like the trade offs. And I know, you know, obviously, we'll talk about Estonia bank and roll you guys are playing here. But with the ETF. It's just curious to me, because everyone suddenly is like a cheerleader. And I'm like, Well, this is like, kind of not really what Bitcoiners have historically been about, like, this is the financial institutions coming in, and we're cheering and

Caitlin Long 31:36
centralizing it. Yeah, I

Jake 31:38
get that we're cheering it on in the sense of like, it's legitimizing. And, you know, for people who own Bitcoin, it's probably, you know, it seems like a bullish thing for the conversion price to US dollars, which, again, the same people claim to be like, well, we don't care what it's worth in US dollars. We just care how much Bitcoin we have and stuff. So it's been like a little bit hypocritical from my perspective, and I don't know what to make of it. So I'm curious your perspective? Well,

Caitlin Long 32:00
I've been saying since I first published about it in 2018. I've been saying publicly that the ETFs would be a double edged sword, right. People were asking begging for the ETFs. Back then it was already five years after the SEC, the SEC had received its first ETF applicant for Bitcoin, back then, when I was publishing it five years ago. And I was

talking about, you know, some of the some of the games that I saw, I remember at the beginning of this conversation, we were talking about the just the morass of the back office of Wall Street, there, believe it or not, the Wall Street firms never have an accurate account of who owns what never, it doesn't, it doesn't happen. And there's a simple reason why, because the IT systems are never in sync with each other. And because of that, they they have to have fault tolerance is built into the system. And there was a really interesting tweet thread that was put out over the weekend by somebody who clearly knew the Wall Street, back office ins and outs, and talked about the DTCs continuous net settlement system and explained how you can have failures to deliver through the continuous net settlement system, which was designed to basically allow for netting, right, it's not a real time gross settlement. It's a delayed net settlement system. And the Bitcoin has this continuous net settlement, but it's always on a short enough Bitcoin. The DTC has a continuous net settlement system, but it's always on a delay. Okay, what does that mean? It means that the system is never in sync with each other. Like, why did we why why do the banks close at night? Why don't we have banks and stock markets and other financial markets open 24/7 365 because they needed time to catch their books and records up with each other. But even then, they were never completely in sync with each other. Why? Because back when securities were in paper form, they physically had to move, and they couldn't physically move in real time it would take typically next day, that's the reason why all the banks Originally, the big brokers, firms were located down by the New York Stock Exchange. These are the this is the history of how all this stuff evolved. Okay. And we did not have the ability and actually if you really step back at a very high level of abstraction here, Lynne Alden makes this point and broken money. It's when you actually had international telecom emerge that you can actually have transaction data, the instructions of a transaction could move, essentially at the speed of light. Certainly, now it can. But the problem is that money was gold and money only moved at the speed of matter. Okay, so then the banking system abstracted that away and said, well, let's have an IOU for the gold. And that can move as data at the speed of light. But it's that settlement mismatch between transaction data moving at the speed of light and money, still moving at the speed of matter. Now, money hasn't been gold since 1971. But what's happened is that we are still in the US stuck with that legacy of t plus. And when I started in the brokerage business in 1994, we were at t plus five days to settle a stock trade. And the biggest reason, you know, we were we were not using paper stock certificates by then what why was it still five days? Because it still took a couple of days to settle the US dollar leg? Well, now the Fed just introduced fed now. So there's a possibility that we can actually speed up settlement, the SEC has told the brokerage firms, your you got to go from t plus two days to T plus one day, beginning in May of this year. But still, the question becomes why are we not at t plus 10 minutes like Bitcoin, we certainly have the ability to do that kind of settlement, that speed of settlement, and have a Fed now transaction is now 24/7 365. It's not quite real time gross settlement, because it's not gross, you can actually have it, you can actually have netting, the Fed itself will do the netting. But you see where I'm going like is we look down the road. And this is maybe to bring this segment to a conclusion, Littleton is great at thinking about things because she's an engineer. And she said, look, there are two basic three, we're talking about these three fault lines earlier, there are two basic monies that have been used in human history, commodity monies like gold, or cattle or wampum, something physical, and then credit monies, which is which is basically just lend your money, it's IOUs, that were written on somebody's ledger, so So you either historically or in have tended to be in one camp or the other. What she concludes is that because of telecommunications, we've been able to create faster transaction data. But we still haven't solved that money leg and her punch line is she she proposes a unified theory of money, which is all money is digital ledger money. And we need a ledger that's that that can be continually updated, transparently and globally, which no one controls. And that is Bitcoin. And that is why she thinks bitcoin is so significant. She's not a an idiot lot. From her she's perspective, she's bringing in engineers perspective, which is we finally have the ability to move the actual money, not just some stroke of the pen that some government controls or central bank controls, this is decentralized money that no one actually controls. And that can move at the speed of light. Now, that's the game changer. Now we can move transaction data at the speed of light, and we can move the money at the speed of light, because of Bitcoin. And that money, she had a really profound text, a tweet, a lot of people commented on that what's happened in the last few decades, since the US went off the tether of the gold standard. And all that was was a tether on credit growth. That's it, there was nothing magical about gold, per se, it just tethered the amount of money the US government could issue. And once we broke that tether, and there was just an infinite amount of money that could be issued, then what and her she she concedes that this is the only time in human history where we're the worst money has crowded out the better money. And because gold can't be gold clearly has been money throughout millennia. And yet, why is it that that this that the stroke of the pen money's these these, you know, Central Bank Ledger monies? Why is it that they crowded out gold? And the answer is because of how fast transaction data could move, it could move at the speed of light. And therefore, because the settlement mismatch was so extreme of having to move the gold at the speed of matter, and it was very slow move versus moving the data at the speed of light. That is the one reason why for the last five decades we've had the worst money crowding up the better money and her thesis and I think she's going to be proven right is that we're going back to we're gonna reverse that because a Bitcoin it's going to be reversing the millennia of sorry, reversing the five decades of the worst money crowding out the better money. And the weird thing is as I thought about that profound statement over the weekend, economic the economics field got corrupted by that. The fact that the worst money was crowding out the better money because a lot of folks looked at it and objectively said people want dollars not gold anymore because dollars can you know it's Central Bank Ledger money, it can move faster, and they don't want the gold coins it's it's it's a minority of the population that wanted the gold coin want the gold coins right now. Look at the gold market compared to the total amount of US dollar credit your solid credit is outstanding is over $100 trillion. Right? The gold market is a fraction of that. So that tells you people want dollars, not gold right now. Why? Because dollars can move faster, even though they're constantly getting diluted. But I think her theory is right that we're because of Bitcoin, we now have the ability as a species, the human, the human race, to go back to what money was, before fiat money corrupted the definition of it. And I think she's right. And that is profound stop and think about that. I hope I've done her theory, justice.

Jake 40:35

Yeah, that's a fascinating observation. And I definitely need to sit with that for a little bit. But it strikes me basically as being she didn't look for a reason to justify being optimistic about the future of Bitcoin. She looked for why has what's happened to money happened to money? And how can it be fixed? And what is the optimal solution, and arrived at a formula, which is basically what Bitcoin is, in a sense, which I think is a very interesting way that, you know, most people, I don't, I don't know how she originally sort of like got interested in Bitcoin. And so maybe she sort of like, met the two ends in the middle or something like that. But regardless, it's a very interesting thesis. So playing

Caitlin Long 41:20
engineer, so just one quick thing, she's an engineer. So she came, she came at this from the perspective of engineering, and Michael Saylor, same thing. They don't think the way finance people are lawyers think, and I'm super interested in the way they think, because they're they're scientists. They're objective, they live in the real world of constraints of physics and math. Whereas what has increasingly happened is that finance people have lived in the world of, you know, Central Bank, let's just create, you know, money with the stroke of a proverbial pen, and bail people out whenever they need it. Well, their friends out, right, the big banks specifically, yeah, sorry, go ahead. Right.

Jake 42:02
So let's, um, let's play it out a little bit. You mentioned sort of like this reversal, basically, of the last 50 years going away from gold. And now coming back, basically, to digital gold to Bitcoin. I mentioned earlier, you know, if people who don't have sort of faith in the current system think it's broken and sort of doomed to fail. It's hard to really put a timeline on some of these things like this, if there is a reversal, if there's this transition, let's look at the last one, let's say, you know, it took it's been ongoing for five decades from sort of gold to dollars, and is this, you know, the world is changing faster than ever, right? Like, hundreds or 1000s of years ago, uh, you know, especially 1000s 10s, of 1000s of years ago, whatever it was, you would, you know, you could have generations of people, your, your life, you know, you knew what it was going to be

like, at the end of it, or you knew what the world was going to be like, at the end of your life at the beginning, because it was gonna be just like your grandparents life and just grandparents. Like, you weren't? Exactly, yeah. So the further back you go, the more that this is true. And now, it's like, I honestly don't really know what to expect for 2036 years away, let alone 2040 2050 2060. So it's hard to say like, if you have something that's broken, is it like, is this still gonna break at a sort of like, okay, so the last 50 years, like, granted, things have been moving very fast, relatively, for the last 50 years, as well, versus, you know, 500 or 1000 years ago, but it's hard to know, like, how fast are things moving now? And like, does the financial system is it going to move that fast? Because like, Bitcoin, Bitcoins, 15 years old, and that's like, not a super short, like, digital period of time, that's like a real period of time. 15 years, and it's not like it's the world's reserve currency or anything, it's, it's, you know, it's like a trillion dollar market cap or something like that. Like, it's big, and it's been growing very fast, but it hasn't been like, instant. So do you foresee this, you know, quote, unquote, reversal playing out over, you know, years or decades or, you know, several decades? Like, how do you see the timing of that, and then I think a good way to sort of bring custodia and what you're doing to the conversation is like, you did have to make a decision, like when you're starting a business, you know, especially a bank, you're not going to just like sort of do that on a whim for like a couple of year mission. Like you have a long term vision there as to how it fits in the picture. So maybe you can speak to that as well.

Caitlin Long 44:24
Yeah, well, it's it's related. Because if I thought that the US dollar system was going to collapse tomorrow, then I wouldn't have started a bank for US dollars. Right? Why bother? To your point, and it actually does take longer to start a bank than you and I anticipated. Now, granted, we've had a lot of curveballs thrown at us. But yeah, eventually it will all come out just how many curveballs we've had thrown at us. And we are a survivor. And that's great. And I salute the the folks who are along this along with custodia in this journey precisely because it has been a winding road. unanticipated ly and literally illegally. I'll set that aside. The, to get back to Yeah. What's the transition period? And that gets to Lin's book as well,

which I highly recommend. It's it's going to take time. And if I thought it wasn't going to take time, then I would have done what a lot of hardcore Bitcoiners did and start a Bitcoin only business. But actually, right now, I think the most, the most important thing that I could do to help the ecosystem develop is help, it makes sure that it maintains its US dollar connectivity. And so that's why I've put my time and efforts into this and look at how hard they're fighting us. And it's a really interesting question, because some of the biggest banks or banking the big exchanges just came out this morning. We're recording this on Tuesday, Howard Lutnick of Cantor Fitzgerald announced that Davos that Cantor Fitzgerald has been holding the tea bills for tether all along that had been rumored but had never been, to my knowledge publicly confirmed until today. Okay, so Wow, there's a double standard, right? You know, look at the small banks and, and crypto native companies like ourselves trying to break in and look at the big institutions that have been allowed to do the things that the regulators have prohibited the startups from doing. And they say that it's illegal for the startups to do those things. And then look at the big banks doing exactly those things, big institutions doing exactly those things. So I'm with you, I don't I don't share this, I look at it and say, Okay, wow, there is an incredible double standard among the regulators here. And I'll leave it at that. I don't want to say more. But now to your question of, of how does this play out? So for the nameless and I probably two, three years ago had a debate on is it a sudden collapse? Or is it a gradual people just vote with their feet. And we saw that with Uber, it's a really good example of, you know, the, the incumbent Taxi and Limousine Commission's and taxi medallion owners were fighting Uber tooth and nail and then ended up joining us. And it was a winding path, it wasn't it wasn't just a one time, you know, flip over, right. And there was there were a lot of fights in a lot of places. But at the end of the day, the taxis for the most part are they found, you know, equilibrium with with Uber and a lot of taxi drivers or Uber drivers, and now they can be flagged down on the street, if they're not, you know, currently becoming an Uber or Lyft, you know, on the way to an Uber or Lyft drive. Or they can just turn their light off, because they're on their way to an Uber or Lyft drive like that. That's the kind of stuff that's happening. And it will happen with finance as well. And people will just vote with their feet. And they will use both systems. And I think that's that's already happening to to a small degree today. To your point, it's especially true in emerging markets. And Americans can't conceive and a lot of people in in developed countries can't conceive of that either. They just can't conceive of not having, you know, readily available banking services, they just can't. And so to Americans, it's a speculative asset, or it's digital gold. But to folks like this gentleman who spoke up from Nigeria, it's a lifeline.

Jake 48:27
Yeah, so last question here, you've you've helped sort of move forward. You know, you mentioned the double standard on regulation. And it's just been, I think, more than anything, it's just been a lack of clarity, that's been problematic. Or at least that's what a lot of people trying to build companies and whatnot and crypto have been sort of pointing to, it's like, well, we'll sort of accept a broad range of different kinds of rules here, but we just need some rules. Yeah, not just, you know, regulation by enforcement, basically. And so you've been critical in sort of helping some productive, you know, regulation sort of come through in in Wyoming, which is, you know, you mentioned at the beginning where you grew up and then live for a while and on the East Coast and moved back to Wyoming, posterior sort of stratified career, I think, more recently, as you're, you know, building custodian, everything. And so can you talk a little bit about some of the more fundamental work that you've done there, or some of the sort of actions that you're more proud of, and that you think can be maybe modeled after by other US states or even potentially federally?

Caitlin Long 49:30
Well, everyone should be watching what we're doing and the litigation that we have. I can just talk about the fact of the litigation, because it does impact the states and I can't say more than that. It just, it the docket is public. A lot got made public right before Christmas. It hasn't really been talked about, but it is publicly available for anyone who wants to go research it and, and, and, you know, the the dates are also public custo They filed for summary judgment on December 20. It was unsealed on December 22. And the summary judgment motions will be fully briefed, I believe, from memory February 23. And if it does go to trial, the trial date is scheduled to begin April 8, that is all public information. So that gives you a

sense of where things stand with that. But, but look, I think a lot of what Wyoming did is replicable. In other states, it's already been copied in a number of states, in Wyoming to some really foundational, boring but important stuff, defined digital assets as property. If it's stolen, then that means it's theft. It defined digital assets under commercial law. Well, that means financial institutions know how to transact with it and know what the rights and obligations are. And it also means that if there is a dispute that ends up in the court system, that a judge has a roadmap for determining the rights and obligations of the parties. And it doesn't end up basically being something where judges have to make it up because there's no statutory guidance. Those kinds of things are really foundational critical of critical importance. And I think the special purpose depository institutions are also really important. There are four states that have chartered uninsured banks, not FDIC insured banks. And the reason why that is important. This goes back to 2017. In Wyoming, Wyoming knew that they operation choke point 1.0, which was done under the current FDIC chair Marty Greenberg, he is FDIC chair again, and has has undertaken operation choke point 2.0 Same person to different operations to turn the screws behind the scenes on the banking industry on industries that are not politically correct. And so one of the things that the states have done, there are four states that have chartered uninsured banks that are not subject to FDIC jurisdiction. And at the moment, the Fed is blocking all of them. It is very interesting, though states are, are an eclectic mix of states to red to blue, Wyoming, we know and Idaho, and then Vermont and Connecticut and one of the Connecticut banks, interestingly, was formed a Connecticut uninsured bank was that has applied for a Fed master account was formed by the recently retired Vice Chair of supervision at the Fed itself. So obviously, he doesn't think that it's a problem to have an uninsured state chartered bank because he chose to form one and apply for a Fed master account. So how this all transpires we'll see, but you start to see how this is important. And all of those things they've had they have been copied these other states that have uninsured banks, those particular banks don't have anything to do with digital assets. But but the whole question over whether the states are subordinate to the Federal Reserve in the banking system that has never been true. And and it will be it will be determined by the courts. And I'll leave it at that.

Jake 53:11
Awesome. Well, thank you, Caitlin. I know we're up on time, but I really appreciate you taking the time. It's been fascinating conversation. Where can people go to follow along with value and what you're doing in the future? Yeah,

Caitlin Long 53:21
definitely most often posting on Twitter at Caitlyn long underscore watch out for lots of imposters, and then also on LinkedIn, and then at custodia bank, on both Twitter and LinkedIn and custodia bank.com. For our website, check us out